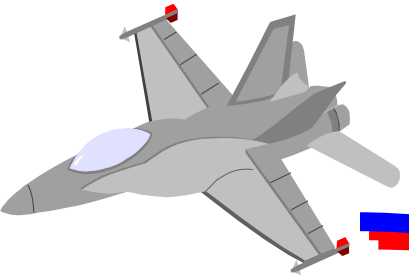
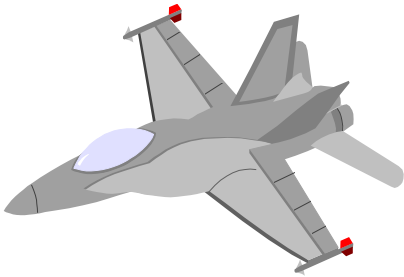
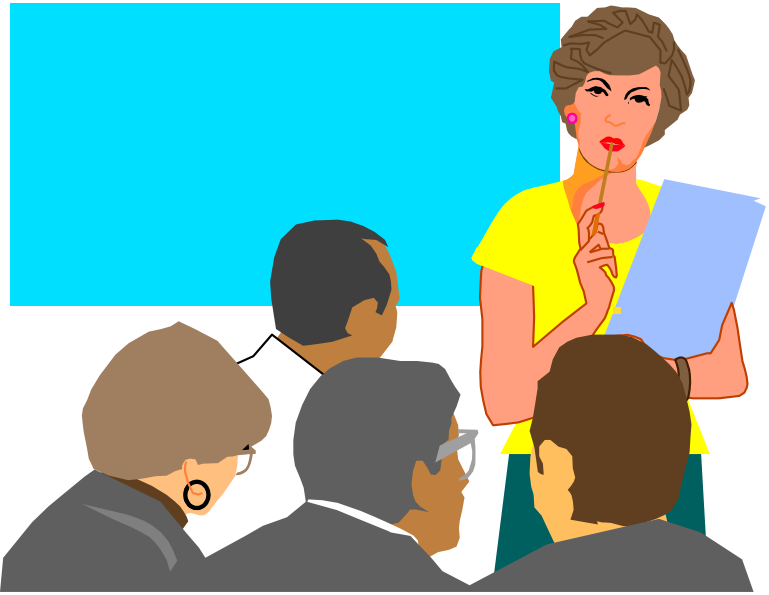
WARRANTY GUIDE TRAINING







Air 3-1E

301-757-8233

WARRANTY GUIDE STATUE OVERVIEW

NAVAIR 3.1E

STATUE

- **WARRANTY MUST BE APPROVED BY CHIEF OF CONTRACTING OFFICE**
- DFARS246.7
- Requirements **repealed** by FY 98 Defense Appropriations Bill. See NAVAIR WEB Site at: https://logistics.navair.navy.mil/warranty/index.cfm

WARRANTY APPROVAL

- WARRANTY CAN NOT BE PURCHASED UNLESS APPROVED BY THE CHIEF OF CONTRACTING OFFICE INCLUDING A WARRANTY PLAN AND **COST BENEFIT ANALYSIS**
- THREE TYPES OF WARRANTY CONSIDERATION FOR PRODUCTION CONTRACT
- COMMERCIAL ITEMS ARE EXCEPTED

WARRANTY CONSIDERATIONS UNDER PRODUCTION CONTRACT

- CONFORM TO DESIGN AND MANUFACTURING REQUIREMENTS
- DEFECT FREE FROM WORKMANSHIP AT TIME OF DELIVERY
- CONFORM TO ESSENTIAL PERFORMANCE REQUIREMENTS IN PRODUCTION CONTRACT

DOD 5000.2-R FINAL
10 June , 2001

- The PM shall examine the value of warranties on major systems and pursue them when **appropriate and cost-effective.** If appropriate, the PM shall incorporate warranty requirements into major systems contracts in accordance with FAR Subpart 46.7. The PM shall emphasize the use of warranties to mitigate the risks of conversion of product definition data for subsystems, components, and spares to performance requirements during post-production support.
- View 5000

NAVAIR POLICY

- NAVAIRINST 13070.7A
  - POLICY GUIDANCE (UPDATED AUGUST 1999.)

VIEWABLE AT: https://logistics.navair.navy.mil/warranty/index.cfm

WARRANTIES

- NAVAIR 3.1E

DEFINITION:

- A Promise or affirmation
- Given by a contractor to the government
- Provided for the natures, usefulness, or condition of the supplies or the performance of services furnished under the contract

Purpose of a Warranty

- To delineate the rights and obligations of the contractor and the Government for defective items and services
- To foster quality performance

What should a Warranty provide?

- A contractual right for the correction of defects notwithstanding any other requirement of the contract pertaining to acceptance of the supplies or services by the Government
- A stated period of time or use, or the occurrence of a specified event, after acceptance by the Government to assert a contractual right for the correction of defects

Cost effectiveness

- Perform an analysis which considers both the quantitative and qualitative costs and benefits of the warranty

Cost effectiveness (continued)

Consider:

- Costs incurred during development specifically for the purpose of reducing production warranty risks
- Costs of warranty acquisition, administra-tion, enforcement, user costs, & any costs resulting from limitations imposed by the warranty provisions

Cost effectiveness (continued)

- Logistical and operational benefits as a result of the warranty as well as the impact of the additional contractor motivation provided by the warranty

Warranty Types:

- Four (4) of the more commonly used warranties are:

  (1) Reliability Improvement Warranty (RIW)

  (2) Mean Time Between Failures Guarantee (MTBFG)

  (3) Availability Guarantee (AG)

  (4) Logistics Support Cost Guarantee (LSCG)

WARRANTY OVERVIEW

NAVAIR 3.1E

WARRANTY CRITERIA

- NATURE AND USE OF SUPPLIES AND SERVICES
- COST
- ADMINISTRATION
- ENFORCEMENT

WARRANTY PROGRAM DESCRIPTION

- COMPLEXITY
- DEVELOPMENT PHASE
- STATE OF THE ART
- END USE
- ABILITY TO DETECT DEFECTS PRIOR TO ACCEPTANCE
- GOVERNMENT RISK IF DEFECTIVE

WARRANTY COST SOURCES

- GOVERNMENT AND CONTRACTOR RISK ASSUMPTION
- ENFORCEMENT
- ADMINISTRATION

WARRANTY ADMINISTRATION

- ADEQUACY OF REPORTING SYSTEM
  - COMPLEXITY
  - LOCATION AND OPERATION SCENARIO
  - STORAGE TIME FOR ITEM(S)
  - TRANSPORTATION CONSIDERATIONS
  - FAILURE DETECTION
  - FAILURE RESPONSIBILITY TRACKING
- TRADE PRACTICES

WARRANTY ENFORCEMENT

- SECTION H WARRANTY CLAUSE
- PERFORMANCE SPECIFICATIONS
- REDUCTION OF GOVERNMENTS QUALITY ASSURANCE

GUIDELINES FOR TERMS AND CONDITIONS

NAVAIR 5.1E

GUIDELINES FOR WARRANTY TERMS & CONDITIONS

- To facilitate pricing and enforcement of warranties, ensure that warranties clearly

  state the:

TERMS/CONDITIONS (CONT.)

- Exact nature of the item & its components & its characteristics that the contractor warrants
- Extent of the contractor’s warranty including all of the contractor’s obligations to the government for breach of warranty
- Specific remedies available to the government, and
- Scope and duration of the warranty

CONTRACTOR OBLIGATIONS

- EXTEND TO ALL DEFECTS DISCOVERED DURING THE WARRANTY PERIOD EXCEPT FOR:

  - DAMAGE CAUSED BY THE GOVERNMENT

CONTRACTOR OBLIGATIONS (CONT.)

WHEN A WARRANTY FOR THE ENTIRE ITEM IS NOT ADVISABLE, A WARRANTY MAY BE REQUIRED FOR A PARTICULAR ASPECT OF THE ITEM THAT MAY REQUIRE SPECIAL PROTECTION (I.E.:

- INSTALLATION,
- COMPONENTS, ACCESSORIES
- SUBASSEMBLIES
- PRESERVATION,PACKAGING, & PACKING, ETC.

REMEDIES

A warranty shall provide that the government may:

- OBTAIN AN EQUITABLE ADJUSTMENT OF THE CONTRACT, OR
- DIRECT THE CONTRACTOR TO REPAIR OR REPLACE THE DEFECTIVE ITEMS AT THE CONTRACTOR'S EXPENSE OR

Authorize government to:

- RETAIN DEFECTIVE ITEM & REDUCE CONTRACT PRICE BY AN AMOUNT EQUITABLE UNDER THE CIRCUMSTANCES, OR
- ARRANGE FOR REPAIR/REPLACEMENT OF DEFECTIVE ITEM, BY THE GOVERNMENT OR BY ANOTHER SOURCE, AT CONTRACTOR'S EXPENSE.

REMEDIES (continued)

Contractor's obligation to repair/replace defective item shall include responsibility for costs of furnishing all labor and material to:

- REINSPECT ITEMS THAT THE GOV'T REASONABLY EXPECTED TO BE DEFECTIVE
- ACCOMPLISH THE REQUIRED REPAIR OR REPLACEMENT OF DEFECTIVE ITEMS, AND
- TEST, INSPECT, PACKAGE, PACK, AND MARK REPAIRED OR REPLACED ITEMS

& INCUR TRANSPORTATION EXPENSES FOR RETURNING DEFECTIVE ITEM FROM PLACE OF DELIVERY TO CONTRACTOR'S PLANT AND SUBSEQUENT RETURN

DURATION

TIME PERIOD OR DURATION OF WARRANTY MUST BE CLEARLY SPECIFIED AND SHALL BE ESTABLISHED AFTER CONSIDERATION OF THE FOLLOWING FACTORS:

- ESTIMATED USEFUL LIFE OF THE ITEM,
- NATURE OF ITEM INCLUDING STORAGE OR SHELF LIFE, AND
- TRADE PRACTICE

NOTIFICATION

Contracting officer shall consider the following factors when establishing the notice period to the contractor regarding the discovery of defects:

- THE TIME NECESSARY FOR GOV'T TO DISCOVER DEFECTS
- THE TIME REASONABLY REQUIRED FOR GOV'T TO TAKE NECESSARY ADMIN. STEPS AND MAKE A TIMELY REPORT OF DISCOVERY OF DEFECTS TO THE CONTRACTOR
- THE TIME REQUIRED TO DISCOVER AND REPORT DEFECTIVE REPLACEMENTS

MARKINGS/LABELING

PURPOSE: TO INFORM GOV'T PERSONNEL WHO STORE, STOCK, OR USE SUPPLIES THAT THE SUPPLIES ARE UNDER WARRANTY. SHOULD INCLUDE:

- A BRIEF STATEMENT THAT A WARRANTY EXISTS
- THE SUBSTANCE OF THE WARRANTY
- ITS DURATION, AND
- WHO TO NOTIFY IF SUPPLIES ARE FOUND TO BE DEFECTIVE.

TAILORING OF WARRANTIES

NAVAIR 3.1E

TAILORING WARRANTY TERMS/CONDITIONS

PURPOSE: TO OBTAIN A COST-EFFECTIVE WARRANTY IN LIGHT OF THE TECHNICAL RISK, OR OTHER PROGRAM UNCERTAINTIES, WHILE

- ENSURING THAT THE GOV'T STILL ACQUIRES THE BASIC WARRANTIES

WARRANTY ANALYSIS

↗NAVAIR 3.1E

WARRANTY ANALYSIS

- PURPOSE: TRANSFER OF RISK
- CONTRACT RFP
- MULTIDISCIPLINED PERSONNEL APPROACH
- RISK ASSESSMENT
- OPTIMUM SOLUTION/SENSITIVITY ANALYSIS
- INFORMATION REQUIRED

PURPOSE

- TRANSFER RISK OF NON-PERFORMANCE FROM ONE PARTY TO ANOTHER
- OBJECTIVE: HAVE MANUFACTURER(WARRANTOR) ASSUME THE NON-PERFORMANCE RISK FOR GOVERNMENT (WARRANTEE)
- ACCOMPLISH PURPOSE IN A COST EFFECTIVE MANNER

CONTRACT/RFP

- ESSENTIAL PERFORMANCE REQUIREMENTS (EPR)
- PERFORMANCE SPECIFICATIONS
- SECTION H CONTRACT WARRANTY CLAUSE

MULTTIDISCIPLINE APPPROACH

- IPT APPROACH
- CROSS COMPETENCY STRUCTURE
- CUT ACROSS MANY FUNCTIONAL AND PROFESSIONAL LINES

TYPICAL PERSONNEL

- WARRANTY ANALYSIS SHOULD INCLUDE MULTIPLE SUBJECT MATTER EXPERTS
- ANALYSIS IS SUBJECT TO RESOURCES AVAILABLE TO WARRANTY MANAGER

TYPICAL WARRANTY ANALYSIS TEAM

- ENGINEERS
  - RELIABILITY
  - MAINTAINABILITY
  - LOGISTICS
- LOGISTICS MANAGEMENT SPECIALISTS
- MATHEMATICIAN
- OPERATIONAL RESEARCH ANALYSTS
- STATISTICIAN
- SYSTEMS ANALYSTS
- COST ANALYSTS

RISK ASSESSMENT

- VIEWS OF WARRANTY RISK
  - CONTRACTOR/PRODUCER VIEWS
  - GOVERNMENT/BUYER VIEWS
- QUALIFYING RISKS
- QUANTIFYING RISKS

OPTIMUM SOLUTION

- RESEARCH
- COST BENEFIT ANALYSIS
- SENSITIVITY ANALYSIS
- TRADEOFF ANALYSIS

INFORMATION REQUIREMENTS

- DATA REQUIRED BY WARRANTY MANAGER (PARTIAL LIST):
  - GROUND RULES AND ASSUMPTIONS
  - CANDIDATE WARRANTY CLAUSES
  - PERFORMANCE SPECIFICATIONS
  - STATEMENT OF WORK/ OBJECTIVES
  - FIELD/ TEST RELIABILITY DATA
  - REPAIR ANALYSIS REPORT
  - LIKE AND SIMILAR WARRANTIES

COST BENEFIT ANALYSIS

Contact Air 4.2.7